REMARKS/ARGUMENTS

This Amendment is responsive to the Office Action mailed on April 26, 2010. Entry of this Amendment is requested.

Prior to this Amendment, claims 1-5, 7-9, 62, 64, 65, 68, 70, 72, 76-78, 80-81, 83, and 85-97 were pending and subject to examination. Presently, claims 68, 76, and 77 have been amended. Claims 85 and 91-93 are hereby canceled without prejudice or disclaimer. New claim 98 has been added by way of this response. Accordingly, claims 1-5, 7-9, 62, 64, 65, 68, 70, 72, 76-78, 80-81, 83, and 86-98 are currently pending in the subject application.

Reconsideration and withdrawal of all currently pending rejections are hereby requested in view of the arguments set forth below.

I. 35 USC 103 - Irwin et al., Durbin et al., Mathew et al., and Kinoshita et al.

In the Office Action, claims 1-5, 7-9, 62, 64, 65, 68, 72, 76-78, 80, 83, and 85-89 stand rejected as being obvious over Irwin et al. (U.S. Pub. No. 2003/0187794 A1) (*Irwin*, hereinafter), Durbin et al. (U.S. Patent No. 4,970,658) (*Durbin*, hereinafter), Mathew et al. (U.S. Pub. No. 2005/0172033 A1) (*Mathew*, hereinafter), and Kinoshita et al. (U.S. Pub. No. 2003/0055792 A1) (*Kinoshita*, hereinafter). Applicants respectfully traverse this rejection for at least the reasons listed below.

At pages 35-36 of the Office Action, claims 70 and 81 are rejected as being obvious over *Irwin*, *Durbin*, *Kinoshita*, and Fare et al. (U.S. Pub. No. 2004/0204078) (*Fare*, hereinafter). Applicants respectfully traverse this rejection for at least the reasons listed below.

A. Obviousness has not been established, since all limitations are not taught or suggested by the cited art

1. Neither Irwin, Durbin, Mathew, nor Kinoshita, taken either singly or in any combination, disclose, teach, or suggest a method or system comprising, inter alia, "a point of service device having a plurality of rules and a plurality of meta-rules" as recited in the present independent claims

Obviousness has not been established, since all claim limitations in independent claim 1 are not taught or suggested by the *Irwin*, *Durbin*, *Mathew*, or *Kinoshita*, alone or in combination. Here, *Irwin*, *Durbin*, *Mathew*, and *Kinoshita* fail to teach or suggest a system comprising, *inter alia*, "a point of service device having a plurality of rules and a plurality of meta-rules" as recited in independent claim 1. The other independent claims recite a similar limitation.

The Examiner alleges that this limitation is taught or suggested at paragraph [0090] of *Irwin*. See page 3 of the Office Action. A "point of service device having a plurality of rules and a plurality of meta-rules" is not taught or suggested by *Irwin*.

As explained previously, in *Irwin*, as shown below, the "user device" is the only device that includes "meta-rules" 120. "meta-rules" are only mentioned once in *Irwin* at paragraph [0090] and this is also in the context of the user device. *Irwin* does not describe the use of rules and meta-rules in a point of service device.

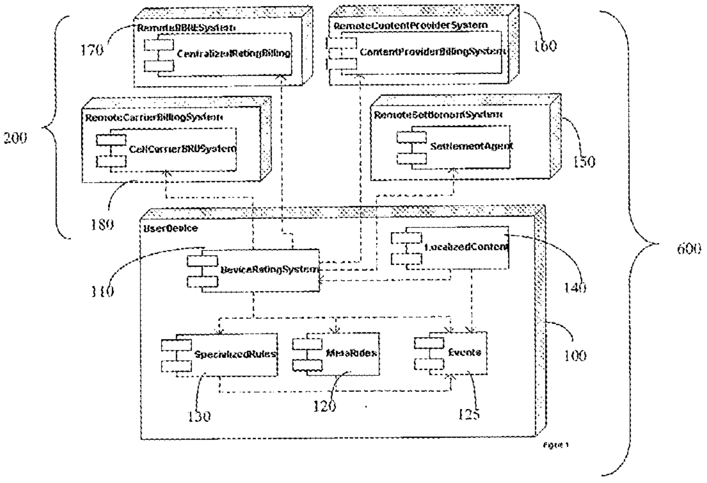
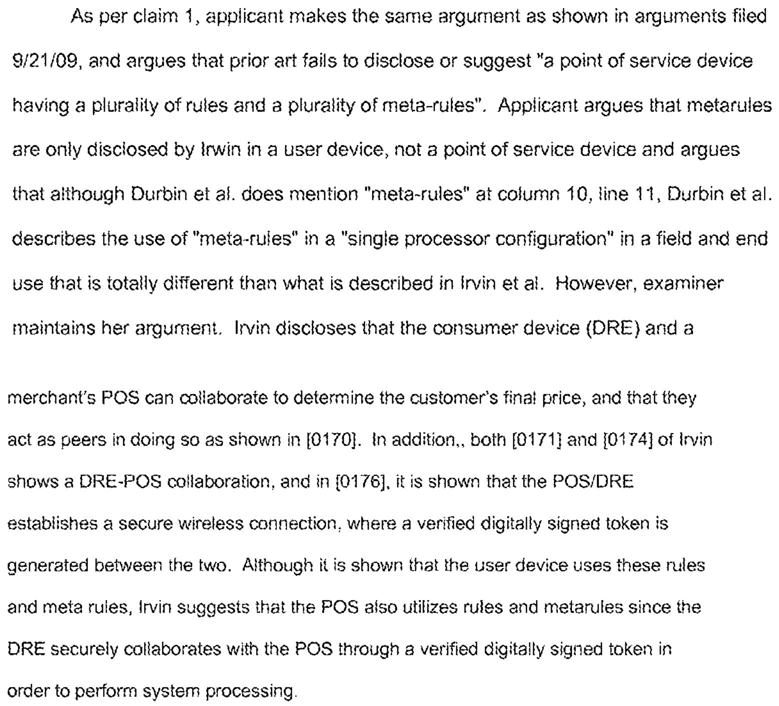


Figure 1

While a “point of sale” device is described at paragraphs [0170] to [0178] of *Irwin*, none of these paragraphs state or suggest that the point of sale device includes “a plurality of rules and a plurality of meta-rules.”

At page 36-37 of the Office Action, the Examiner responds by arguing the following:



> As per claim 1, applicant makes the same argument as shown in arguments filed 9/21/09, and argues that prior art fails to disclose or suggest "a point of service device having a plurality of rules and a plurality of meta-rules". Applicant argues that metarules are only disclosed by Irwin in a user device, not a point of service device and argues that although Durbin et al. does mention "meta-rules" at column 10, line 11, Durbin et al. describes the use of "meta-rules" in a "single processor configuration" in a field and end use that is totally different than what is described in Irvin et al. However, examiner maintains her argument. Irvin discloses that the consumer device (DRE) and a merchant's POS can collaborate to determine the customer's final price, and that they act as peers in doing so as shown in [0170]. In addition,, both [0171] and [0174] of Irvin shows a DRE-POS collaboration, and in [0176], it is shown that the POS/DRE establishes a secure wireless connection, where a verified digitally signed token is generated between the two. Although it is shown that the user device uses these rules and meta rules, Irvin suggests that the POS also utilizes rules and metarules since the DRE securely collaborates with the POS through a verified digitally signed token in order to perform system processing.

As noted above, in response to Applicants' argument, the Examiner alleges that paragraphs [0170]-[0176] of *Irwin* teach or suggest "DRE-POS collaboration" and that the POS/DRE establishes a secure wireless connection.

Applicants do not disagree that DRS-POS "collaboration" is mentioned at paragraphs [0170]-[0176] of *Irwin*. However, independent claim 1 recites "a point of service device having a plurality of rules and a plurality of meta-rules; **and**
a portable device having a plurality of rules and a plurality of meta-rules." Independent claims 68, 76, and 98 recite similar limitations. Thus, in claim 1, there are "two" devices which contain a plurality of rules and meta-rules. Although there is "collaboration"

between a user device and a POS terminal in *Irwin*, there is still only one device, the user device, which contains rules and meta-rules.

Irwin clearly teaches away from having a plurality of rules and meta-rules in a POS terminal. As explained in *Irwin* 's abstract, *Irwin* describes:

> A system and method for computerized metering, rating, billing and managing of account balances on an end computing device is disclosed herein wherein the end device may facilitate such processing whether the device is connected or is not connected to a network. The end device, furthermore, initiates communications with a host processor to obtain updated algorithms, rating tables and other accouterments necessary or desired to meter, rate, and process payments for transaction events. The end device initiates communications with the host processor or another end device to facilitate the synchronization of usage for pricing plans that span one or more devices.

The entire focus of *Irwin*'s proposed invention is to allow only the end user device to determine content that the consumer is actually consuming in his end device. This is explained at paragraph [0034] of *Irwin* which is reproduced below:

> [0034] An advantage to a device-based rating engine is the end device's ability to determine, in a content-based operation, the type of content that it is actually consuming. Rating plans may be built around content types rather than merely time or byte based and the Engine may be designed to select the proper algorithm for the proper event.

Put another way, the DRE (device based rating engine) in *Irwin* and any associated meta-rules must be based on an end device such as a hand held or wireless device in order to take advantage of the end device's ability to process data (see *Irwin*, e.g., paragraphs [0034] and [0071]). Providing such rules in a POS terminal would have no benefit or impact on *Irwin*'s proposed device based rating engine, which is supposed to determine the usage of content on an end user device. Clearly, a point of sale device is not the type of device that uses *Irwin*'s DRE or meta-rules. Because of this, the alleged reason to combine *Irwin* and *Durbin* is not only insufficient, the disclosure of *Irwin* actually teaches away from the modification proposed by the Examiner.

As explained previously, *Durbin* similarly fails to teach or suggest "a point of service device having a plurality of rules and a plurality of meta-rules" as recited in independent claim 1. *Durbin* describes a "knowledge engineering tool" for building expert systems (see *Durbin*, e.g., the abstract). *Durbin*'s "knowledge engineering tool" does not even remotely contemplate that it can be used with a device rating system like the one described in *Irwin*. Despite this, the Examiner relies on column 10, lines 9-12 and column 25, lines 44-52 of *Durbin* (see, e.g., page 5 of the Office Action). These passages from *Durbin* are reproduced below.

> Rule messages 137 are passed from AP 5 to I/E 1 to determine variables or provide meta-rules to provide direction to the inference process. (Column 10, lines 9-12)
>
> Here rule message 137 is searched to determine if any rule conditions 251 remain unexamined or, for rules already determined true, if any rule actions 267 remain incompleted. If such entries are found, then local routing updater 165 fills in the destination from the next object processor 105 on object routing list 211. A next routing counter is incremented in the rule and the rule is forwarded to next instant object 369, sub-object 431, or base object 367. (gtob) (Column 25, lines 44-52)

Clearly, neither passage even remotely describes "a point of service device having a plurality of rules and a plurality of meta-rules." In fact, a point of service device is not described at all in *Durbin*. Although Durbin et al. does mention "meta-rules" at column 10, line 11, Durbin et al. describes the use of "meta-rules" in a "single processor configuration" in a field and end use that is totally different than what is described in Irvin et al. Accordingly, there is clearly no suggestion in Durbin et al. to use meta-rules in a point of sale device, let alone two separate devices like the portable device and the point of service device in independent claim 1 and in other independent claims.

Neither *Mathew* nor *Kinoshita* are relied upon by the Examiner as teaching or suggesting "a plurality of rules and meta-rules in a POS terminal." Accordingly, since none of the cited references teaches or suggests a method comprising, *inter alia*, "a plurality of rules and meta-rules in a POS terminal," obviousness has not been established.

Moreover, in the "Response to Argument" section of the Office Action,[1] the Examiner has completely omitted any discussion or mention of Applicants arguments that "Irwin et al. clearly teaches away from having a plurality of rules and meta-rules in a POS terminal, " which were presented in pages 12-13 the Response filed April 12, 2010.

Pursuant to MPEP § 707(f), the Examiner is reminded that "[w]here the requirements are traversed, or suspension thereof requested, the examiner should make proper reference thereto in his or her action on the amendment," and that "[w]here the applicant traverses any rejection, the examiner should, if he or she repeats the rejection, take note of the applicant's argument and answer the substance of it." (Emphasis added)

Consequently, since the Examiner merely repeated her previous rejection, Applicants hereby request that the Examiner clearly address the above-identified argument with respect to *Irwin* teaching away from having a plurality of rules and meta-rules in a POS terminal, which the Examiner did not note in the Office Action of April 26, 2010. Moreover, in order to afford Applicants a fair and reasonable opportunity to respond to the new arguments/comments presented in the next Office Action, Applicants respectfully request that the next action not be made Final.

2. Neither Irwin et al., Durbin et al., Mathew et al. nor Kinoshita et al. discloses or suggests a method or system including, inter alia, "wherein if the portable device and the point of service device are unable to determine the outcome for the purchase transaction, the point of service device uses its plurality of meta-rules to either determine whether one or more of the plurality of rules in either the portable device or the point of service device can be altered locally in order to determine the outcome or request a service provider system to help determine the outcome using the plurality of rules and the plurality of meta-rules in the service provider system" as recited in independent claims 68 and 98.

None of the cited references teaches or suggests a method comprising "wherein if the portable device and the point of service device are unable to determine the outcome for the purchase transaction, the point of service device uses its plurality of meta-rules to either determine whether one or more of the plurality of rules in either the portable device or the point of service device can be altered locally in order to determine the outcome or request a service provider system to help determine the outcome using the plurality of rules and the plurality of meta-rules in the service provider system" as recited in independent claim 1. The other independent claims recite a somewhat similar limitation.

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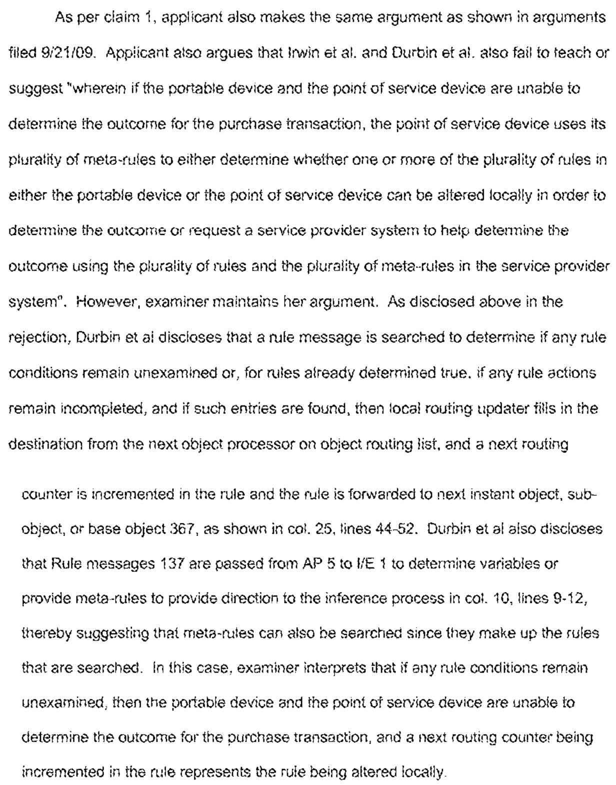
[1] *See*, e.g., pages 36-38 of the Office Action.

In response to this argument, at page 37-38 of the Office Action, the Examiner states the following:



> As per claim 1, applicant also makes the same argument as shown in arguments filed 9/21/09. Applicant also argues that Irwin et al. and Durbin et al. also fail to teach or suggest "wherein if the portable device and the point of service device are unable to determine the outcome for the purchase transaction, the point of service device uses its plurality of meta-rules to either determine whether one or more of the plurality of rules in either the portable device or the point of service device can be altered locally in order to determine the outcome or request a service provider system to help determine the outcome using the plurality of rules and the plurality of meta-rules in the service provider system". However, examiner maintains her argument. As disclosed above in the rejection, Durbin et al discloses that a rule message is searched to determine if any rule conditions remain unexamined or, for rules already determined true, if any rule actions remain incompleted, and if such entries are found, then local routing updater fills in the destination from the next object processor on object routing list, and a next routing counter is incremented in the rule and the rule is forwarded to next instant object, sub-object, or base object 367, as shown in col. 25, lines 44-52. Durbin et al also discloses that Rule messages 137 are passed from AP 5 to I/E 1 to determine variables or provide meta-rules to provide direction to the inference process in col. 10, lines 9-12, thereby suggesting that meta-rules can also be searched since they make up the rules that are searched. In this case, examiner interprets that if any rule conditions remain unexamined, then the portable device and the point of service device are unable to determine the outcome for the purchase transaction, and a next routing counter being incremented in the rule represents the rule being altered locally.

While the Applicants do not disagree that *Durbin* may describe rule messages that are "searched," searching a rule message is cannot be equated with the features of "wherein if the portable device and the point of service device are unable to determine the outcome for the purchase transaction, the point of service device uses its plurality of meta-rules to either determine whether one or more of the plurality of rules in either the portable device or the point of service device can be altered locally in order to determine the outcome or request a service provider system to help determine the outcome using the plurality of rules and the plurality of meta-rules in the service provider system."

For example, Durbin et al. fails to teach or suggest the replacement of a rule "if" a portable device and a point of service device are unable to determine the outcome of a purchase transaction. In fact, *Durbin* is directed to an "expert system" that is based on artificial intelligence. There is no need for or ability to determine the outcome of a purchase transaction between two different devices disclosed in *Durbin*. Consequently, *Durbin* clearly fails to teach or suggest at least the features of "wherein if the portable device and the point of service device are unable to determine the outcome for the purchase transaction, the point of service device uses its plurality of meta-rules to either determine whether one or more of the plurality of rules in either the portable device or the point of service device can be altered locally in order to determine the outcome or request a service provider system to help determine the outcome using the plurality of rules and the plurality of meta-rules in the service provider system."

3. Neither Irwin et al., Durbin et al., Mathew et al. nor Kinoshita et al. discloses or suggests a method or system including, inter alia, "wherein the at least one price computation rule uses service provider and data logs to determine the outcome of the transaction" as recited in independent claims 68 and 98.

None of the cited references teaches or suggests a method comprising *"wherein the at least one price computation rule uses service provider and data logs to determine the outcome of the transaction*," as recited in independent claims 68 and 98.

In rejecting this limitation, which was previously recited in now canceled dependent claim 85, the Examiner states:

> wherein the at least one price computation rule uses service provider and data logs to determine the outcome of the transaction, ([0148], shows that each subscriber may have a user interface connected to their own on-device billing and rating Engine which allows the user to query the device for information relating to their account (usage, charges, etc.), and as events occur and are priced and balances are adjusted, the DRE may maintain a running log of such transactions, where these logs may record various attributes of the event processing (data and time, location, etc.), and may be transferred to back-end systems for long-term storage and balance reconciliation).

However, paragraph [0148] of *Irwin* actually states:

> [0148] Another aspect to the DRE may include the deflection of self-care from a call center to the end device. Each subscriber may have a user interface connected to their own on-device billing and rating Engine which allows the user to query the device for information relating to their account (usage, charges, etc.). As events occur and are priced and balances are adjusted, the DRE may maintain a running log of such transactions. These logs may record various attributes of the event processing (data and time, location, etc.). These logs may be transferred to back-end systems for long-term storage and balance reconciliation. The policy for such interactions may be configurable. (Emphasis added)

As seen above, paragraph [0148] is actually in reference to the DRE being able to deflect self-care from a call center to the end device, and not "*wherein the at least one price computation rule uses service provider and data logs to determine the outcome of the transaction*," as alleged by the Examiner.

4. Neither Irwin, Durbin, Mathew, nor Kinoshita discloses or suggests a method or system including, inter alia, "...wherein one or more of the rules in the portable device and the point of service device represent a consumer behavior model, wherein the point of service device is a vending machine, wherein the vending machine uses inventory control and pricing methods to maximize the number of sales between service visits" as recited in independent claim 76.

None of the cited references teaches or suggests a method comprising *"...wherein one or more of the rules in the portable device and the point of service device represent a consumer behavior model, wherein the point of service device is a vending machine, wherein the vending machine uses inventory control and pricing methods to maximize the number of sales between service visits,"* as recited in independent claim 76.

In rejecting these features, which were previously recited in now canceled dependent claims 91-93, the Examiner states:

> As per claim 91, Irwin discloses:
>
> wherein one or more of the rules in the portable device and the point of service device represent a consumer behavior model, ([0088] The DRE model may be particularly suited toward a prepaid model where the balance persists even when the consumer may be out of range of the network. This disconnected mode may occur by environment (inside a building, elevator, or tunnel), regulation (airplane), or choice (power-saving mode)).
>
> As per claim 92, Irwin discloses:
>
> wherein the point of service device is a vending machine, ([0064], vending machines).
>
> As per claim 93, Irwin discloses:
>
> wherein the vending machine uses inventory control and pricing methods to maximize the number of sales between service visits to be, [0064] The DRE may comprise a general-purpose rating and billing Engine hosted on a wide variety of end devices which may not be specific to any industry. The DRE processes events which may include content consumption events (i.e., download or read a book, open a WebPage, check a stock portfolio, etc.) or transaction events (i.e., online purchases or other non-content-based services)--any activity capable of being measured, billed, or authorized, and is shown to be applied to vending machines).

However, paragraphs [0064] and [0088] of *Irwin* actually state:

> [0064] The DRE may comprise a general-purpose rating and billing Engine hosted on a wide variety of end devices which may not be specific to any industry. The DRE processes events which may include content consumption events (i.e., download or read

> a book, open a WebPage, check a stock portfolio, etc.) or transaction events (i.e., online purchases or other non-content-based services)--any activity capable of being measured, billed, or authorized. The end device may comprise any device capable of hosting content or offering a meterable service. The end device may be fixed or mobile, distributed or centralized (i.e., where a server itself may be actually consuming content or engaging in a transaction event as opposed to merely delivering content to a client system.) Content may even be stored and consumed later on the end-device when the end-device is off-network. Preferably, some, at least periodic (scheduled), intermittent (random), or occasional (user-initiated), connection to a network may be available. The following list of potential end devices is meant to be explanatory rather than limiting: mobile devices, pagers, cell phones, PDAs, laptops, desktops, game consoles, set-top boxes, appliances such as televisions and washing machines, services, personal computers, stereos, walkmen, MP3 players, DVD player (handheld or otherwise), vending machines, rental equipment and more.
>
> [0088] The DRE model may be particularly suited toward a prepaid model where the balance persists even when the consumer may be out of range of the network. This disconnected mode may occur by environment (inside a building, elevator, or tunnel), regulation (airplane), or choice (power-saving mode). Also, in the prepaid model, a platform may be designed to deal with micro-payments which are currently associated with high processing and transmission costs. (Emphasis added)

Although, vending machines are mentioned in paragraph [0064] of *Irwin*, vending machines are only mentioned in passing as a possible end device on which "[c]ontent may even be stored and consumed later on the end-device when the end-device is off-network, but does not teach or suggest "*wherein one or more of the rules in the portable device and the point of service device represent a consumer behavior model, wherein the point of service device is a vending machine, wherein the vending machine uses inventory control and pricing methods to maximize the number of sales between service visits,"* as recited in independent claim 76. Moreover, paragraph [0088] merely suggests that the DRE may be "…particularly suited toward a prepaid model where the balance persists even when the consumer may be out of range of the network," and that "[t]his disconnected mode may occur by environment (inside a building, elevator, or tunnel), regulation (airplane), or choice (power-saving mode." Again, paragraph [0088] of *Irwin* fails to teach or suggest the above-identified features with respect to independent claim 76.

At least two limitations in each of the independent claims is not taught or suggested by the cited art, so obviousness has clearly not been established.

B. Obviousness has not been established, since Durbin et al., Irwin et al., Mathew et al., and Kinoshita et al. are in very different fields and the reason to combine references is insufficient to establish obviousness

Obviousness has not been established, because the cited references are very different from each other, and one would not have been led to combine them in the manner proposed by the Examiner, because they are so different. As noted above, Durbin et al. is directed to a system that includes a "device rating engine" in an end user device such as a music player. The entire focus of *Irwin*'s proposed invention is to allow only the end user device to determine content that the consumer is actually consuming in his end device. Irwin et al. is directed to a "knowledge engineering tool" that relates to artificial intelligence (machine learning). See the Background of the Invention section in *Irwin*. *Irwin* fails to mention or discuss "device rating engines" or anything remotely related to "device rating engines." *Mathew* is in the field of message and document management. See the Field of the Invention section in *Mathew*. *Mathew* fails to describe anything remotely related to device rating engines or artificial intelligence. Lastly, *Kinoshita* fails to describe anything remotely related to device rating engines, artificial intelligence, or message and document management. Given the extreme diversity of subject matter in the *four* references needed to reject even the broadest claims, Applicants respectfully submit that obviousness has clearly not been established.

C. Obviousness has not been established, since the reason to combine the references is from Applicants' disclosure and not the prior art

The Examiner alleges that the "motivation" to combine *Irwin* and *Durbin* relates to "using a set of rules that can be adjusted to accommodate for the determination of a transaction" (see pages 6-7 of the Office Action). However, as explained by the Court of Appeals for the Federal Circuit:

> The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

Here, the alleged "motivation" to combine the cited references is not found in the cited art, but was inappropriately taken from the Applicants' own disclosure. The only place of record that teaches or suggests "using a set of rules that can be adjusted to accommodate for the determination of a transaction" is in the Applicants' own specification (see, e.g., the "Brief Summary of the Invention"). It is clear that the Examiner's use of the advantages described in Applicants' own specification to reject Applicants' own claims is improper. Obviousness has not been established for yet another reason.

At page 38 of the Office Action, the Examiner responds to Applicants' arguments that the references cannot be combined in the manner proposed by the Examiner by citing the *KSR* case. The Examiner's arguments do not address Applicants' argument that the reason to combine the cited reference must be suggested by the prior art (i.e., one of ordinary skill at the time of the invention) and cannot be extracted from Applicants' specification, and the Examiner has relied upon the use of impermissible hindsight in her rejection of the claims. Thus, for yet another reason, obviousness has not been established.

CONCLUSION

In conclusion, Applicants submit that there are many more reasons why the claims are considered patentable, rather than unpatentable. Thus, a Notice of Allowance is earnestly and respectfully solicited. If the Examiner believes a telephone conference would expedite prosecution, please telephone the undersigned.

Respectfully submitted,

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